

$$a_n = a_1 \cdot r^{n-1}$$

11. 3 p 591 15, 17, 21, 23, 31-39 odd 38, 43, 45

15. $r = 1.5$

$(54, 81)$

17. $r = \frac{2}{3}$

$\frac{20}{27}, \frac{40}{81}$

21. 2, -6, +18, -54, 162 23.

243, 81, 27, 9, 3

31. $a_4 = 16$ $r = \frac{1}{2}$ $n = 8$

$a_8 = 16 \left(\frac{1}{2}\right)^{8-4}$

$(a_8 = 1)$

33. $a_9 = \frac{1}{5}(5)^8$

$(5^7 = 78125)$

* a_6 b/c 5 hrs later

35. $a_8 = 4(-3)^7$

(-8748)

37. $a_6 = 2000 \left(\frac{4}{5}\right)^5$

(655.3616)

39. $a_n = 36 \left(\frac{1}{3}\right)^{n-1}$

38. $a_5 = 40000(1.04)^4$

$(\$46794.34)$

43. 9, —, —, —, 144

$144 = 9 r^4$

$16 = r^4$

$\pm 2 = r$

$(\pm 18, 36, \pm 72)$

45. 32, —, —, —, —, 1

$1 = 32(r)^5$

$\frac{1}{32} = r^5$

$\frac{1}{2} = r$

$(16, 8, 4, 2)$